

Variable Resistors

STANDARD VERSIONS



PRN 162
PRN 322
PRN 642
PRN 962
PRN 3/322

$1\ \Omega \div 10\ \text{k}\Omega$
 $160\ \text{VA} \div 960\ \text{VA}$

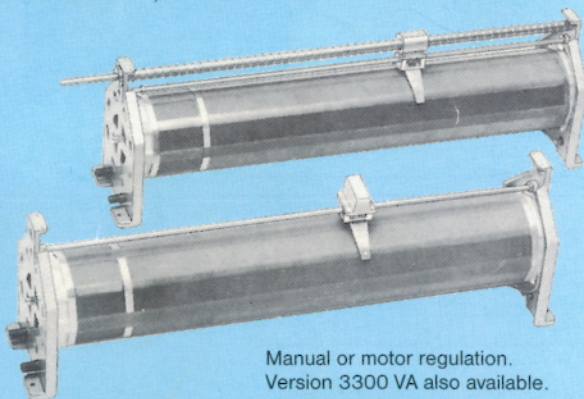


EN 61010-1

SPECIAL VERSIONS

PRN 1100, PRM 1100

1100 VA; $5\ \Omega \div 10\ \text{k}\Omega$



Manual or motor regulation.
Version 3300 VA also available.

VRN 160, VRN 320

160 VA; $1\ \Omega \div 3.3\ \text{k}\Omega$



320 VA; $1\ \Omega \div 10\ \text{k}\Omega$

ORN 300

300 VA; $8\ \Omega \div 10\ \text{k}\Omega$



Application

These table types variable resistors are indispensable aids for varying of d.c. and a.c. currents or voltages in a wide range of electrical industry such as testings in auto-electricity, in measuring and controlling laboratories, and for demonstrations in school electrotechnical programs. The units can be applied as rheostats or potentiometers.

Design

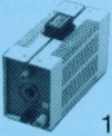
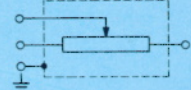
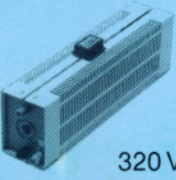
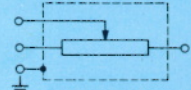
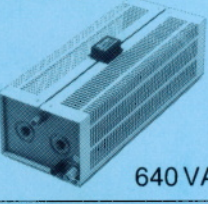
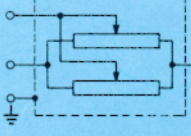
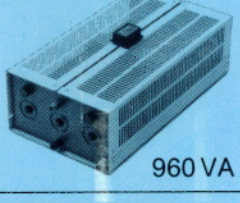
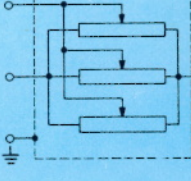
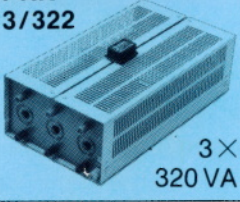
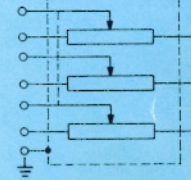
The principal part of all variable resistor types are the pyrostatic ceramic cores with resistance wire from $1\ \Omega$ to $10\ \text{k}\Omega$ according to Renard serie. Intermediate values can be provided by connecting the resistance coils of some of the types in parallel. Non-standard values and tolerances can be furnished on customer's request.

The variable resistors are constructed in compliance with the standard EN 61010-1.

Special Versions

Special versions are designed to be built-in into various electronic and control devices. These types are manufactured on customer's request.

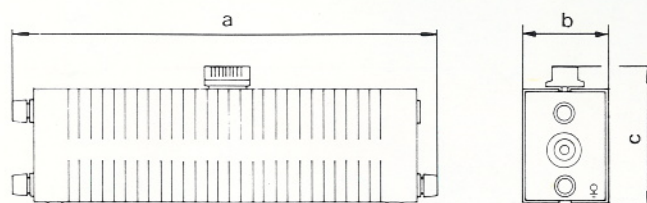
Variable Resistors (Standard versions) — TECHNICAL CHARACTERISTICS

Type	Description	Resistance (Ω)	Nominal current (A)	Mass* (kg)	Dimensions (a × b × c)	Scheme
PRN 162  160 VA	Small handy version	1 3.3 10 33 100 330 1000 3300	13 7 4 2.2 1.25 0.7 0.4 0.22	1.75 ÷ 1.95	246 × 93 × 150	
PRN 322  320 VA	Version for usual loadings. One resistance coil in a housing.	1 3.3 10 33 100 330 1000 3300 10000	18 10 5.7 3.1 1.8 1.0 0.57 0.31 0.18	2.85 ÷ 3.25	446 × 93 × 150	
PRN 642  640 VA	Version for high loadings. Two parallelly connected resistance coils, in a housing. Sliding pieces are mechanically and electrically connected.	0.5 1.6 5 16.5 50 165 500 1650 5000	36 20 11.4 6.2 3.6 2 1.1 0.63 0.36	5.0 ÷ 5.8	446 × 165 × 150	
PRN 962  960 VA	Version for very high loadings. Three parallelly connected resistance coils, in a housing. Sliding pieces are mechanically and electrically connected.	0.33 1.1 3.33 11 33 110 333 1100 3330	54 30 17 9.3 5.4 3 1.7 0.98 0.54	7.9 ÷ 9.1	446 × 230 × 155	
PRN 3/322  3 × 320 VA	Three phase version with resistance coils 3 × 320 VA. Sliding pieces are mechanically connected.	3 × 1 3 × 3.3 3 × 10 3 × 33 3 × 100 3 × 330 3 × 1000 3 × 3350 3 × 10000	3 × 18 3 × 10 3 × 5.7 3 × 3.1 3 × 1.8 3 × 1.0 3 × 0.57 3 × 0.31 3 × 0.18	7.9 ÷ 9.1	446 × 230 × 155	

* Depending on resistance

Common Technical Data

Rated resistance	see table
Resistance tolerance	± 10 %
Allowed permanent load at 23 °C ambient temperature	see table
Insulation resistance	> 3 × 10 ⁹ Ω
Earthing resistance	< 0.1 Ω
Allowed voltage at terminals	max. 600 V≈
Allowed voltage between terminals (applied to PRN 3/322)	max. 700 V≈
Breakdown voltage against casing	> 2500 V~
Protection degree	IP 20
Construction in compliance with	EN 61010-1



Ordering

When ordering, please state the resistor type and ohmic value, e.g.: **PRN 322, 1 Ω**.
Special types will be manufactured on customer's request only.